ABSTRACT OF THE DISCLOSURE

The method is characterized in that the mix provided for the vulcanizable rubber, combined with at least one reinforcing filler and at least one vulcanization accelerator, comprises a compound containing at least one nitrile-based vulcanizable rubber and at least one acrylic resin. A metered quantity of the mix is introduced within a first cavity of a mold, whose bottom is constituted by a piston that is kept at temperatures between 100 and 200 °C, while in an upper region there is a dummy last, which is also kept at temperatures between 100 and 200 °C, the two temperatures being adjustable independently. Once the tread sole has been prepared in this regard, the sole bottom carried by the piston descends, forming an additional cavity into which the polyurethane is injection-molded. The vulcanized rubber can react further with the components of the polyurethane, producing great mutual adhesion of the two materials.